IN THE UNITED STATES BANKRUPTCY COURT

FOR THE NORTHERN DISTRICT OF TEXAS

DALLAS DIVISION

In re: **THINK FINANCE, LLC, *et al.*,** **Debtors.**	**Chapter 11** **Case No. 17-33964 (HDH)** **(Jointly Administered)**

EXPERT REPORT OF HOWARD BEALES

August 13, 2018

Exhibit 1

QUALIFICATIONS

1. I am a Professor of Strategic Management and Public Policy at the George Washington University School of Business, where I have taught since 1988. I received my Ph.D. in Economics from the University of Chicago in 1978, and I graduated magna cum laude and Phi Beta Kappa from Georgetown University in 1972. From 2001 through 2004, I served as the Director of the Bureau of Consumer Protection at the Federal Trade Commission ("FTC" or "the Commission").

2. During my tenure, the Commission filed 258 federal court cases and obtained orders for nearly $1.3 billion in consumer redress. I was closely involved in numerous credit-related law enforcement activities, including actions against subprime lenders engaged in deceptive practices, such as a $240 million settlement with Citigroup that was at the time the largest settlement in FTC history. I also worked with Congress and the Administration to develop and implement the Fair and Accurate Credit Transactions Act of 2003. I testified before Congressional committees on numerous occasions, including on the Fair Credit Reporting Act, identity theft, internet fraud, and consumer protection problems in credit counseling.

3. From 1983 to 1987, I served as the Bureau of Consumer Protection Associate Director for Policy and Evaluation. Among other responsibilities, I supervised the conduct of empirical studies of general policy issues, rulemakings, and individual cases. I was also responsible for developing recommendations on whether to pursue particular cases. I was heavily involved in developing the FTC's Policy Statement Regarding Advertising Substantiation and its Policy Statement on Deception.[1] A copy of my resume is attached is Exhibit A.

4. I have given speeches and written articles on the FTC and various aspects of consumer protection regulation. I have also testified before Congress regarding consumer protection matters, including dietary supplement fraud, internet fraud, credit reporting, and identity theft. I also co-authored a monograph on the FTC's unfairness authority[2] and wrote an article on the same subject.[3]

5. Think Finance asked me to address the market for small dollar loans such as the installment loans at issue in this case, including the benefits that such products may offer to particular consumers and the disclosures that accompany them.

6. I am being compensated for my time at the rate of $950 per hour. My compensation does not depend in any way on my opinions. A list of prior cases in which I have testified or filed an expert report it attached as Exhibit B.

---

[1] FTC, *Policy Statement Regarding Advertising Substantiation* (1983), appended to Thompson Med. Co., Inc., 104 F.T.C. 648, 839 (1984), *aff'd*, 791 F.2d 189 (D.C. Cir. 1986), *cert. denied*, 479 U.S. 1086 (1987); FTC, *Policy Statement on Deception* (1983), appended to *Cliffdale Assoc., Inc.*, 103 F.T.C. 110, 174 (1984) ("Deception Policy Statement").

[2] T. J. Muris and J. H. Beales, *The Limits of Unfairness under the Federal Trade Commission Act*, (Association of National Advertisers, 1991).

[3] "The FTC's Use of Unfairness Authority: Its Rise, Fall, and Resurrection," *Journal of Public Policy and Marketing*, Fall, 2003, Vol. 22, No. 2, pp. 192-200.

SUMMARY OF OPINIONS

7. There is a significant and legitimate consumer demand for liquidity credit products, also known as small dollar loans, arising from financial hardships, even small unanticipated expenses, and income volatility. The availability of products to meet this demand serves a useful purpose and is valuable to many consumers.

8. Fully amortized installment loans substantially reduce the risk of the debt trap that can occur with traditional payday loans and are therefore generally a better product for consumers. Like all liquidity loans, the loan products at issue in this case are costly, but they are likely less costly than alternative forms of credit or the available substitutes for credit.

9. The cost of short-term small dollar loans is high. Many of the costs of making a loan are fixed costs, and with liquidity credit, these fixed costs must be recovered over a relatively small amount and a relatively short period of time. Costs are also high because lenders often experience high default rates, and default losses must also be covered in the price of the loan.

10. Consumers have the information they need to make informed decisions about whether to take out a Plain Green or Great Plains loan. The terms of the credit are clearly disclosed in accordance with the requirements of the Truth in Lending Act.

11. The benefits and costs of any particular source of liquidity credit vary significantly from consumer to consumer. The motives for borrowing, and hence the size of the desired loan and the benefits of receiving a loan, are different. The interest rate charged on a particular loan varies with the individual's creditworthiness. The alternative conventional loan products available, such as credit cards, personal loans, or payday loans, differ, as do their costs. The cost and availability of alternative products such as pawn shop loans, bank overdraft protection, or credit alternatives such as late payment fees also varies from place to place and from person to person. Despite these variations in benefits and costs, the fact that a consumer took out a loan implies that in the consumer's view at the time, the loan would provide net benefits.

12. In the financial services industry, the division of functions among different parties is commonplace, driven by fundamental economic factors. A typical home mortgage transaction, for example, involves at least an originator, a lender, a securitizer, a servicer, and an investor.

13. Even seemingly simple transactions like processing a credit card transaction may be finely divided to take advantage of economies of scale, gains from specialization, alignment of incentives, and other economic factors. There is nothing "artificial" about such divisions, and a central strategic issue for any business is determining the most efficient allocation of responsibilities.

THE MARKET FOR LIQUIDITY CREDIT

The Demand for Liquidity Credit

14. One of the most common forms of liquidity credit is the payday loan. The typical payday loan involves a relatively small amount lent for a short period of time. A typical payday loan is due on the next payday, often in two weeks and seldom more than a month from the time of the loan. Fees are typically $15 to $30 per hundred dollars borrowed. Expressed as an annual percentage rate (APR), these rates are high, but comparable to and often less than other short term borrowing alternatives such as overdrafts, late payments, or bounced check fees.[4]

15. The demand for short term credit arises in part because numerous consumers experience some financial hardship over the course of a year. Credit enables consumers to maintain their level of consumption despite a short term setback affecting either income or expenses. The Federal Reserve Board reported that in 2014, 24% of households experienced a financial hardship in the previous 12 months. Of those who experienced a hardship, 35% experienced job loss, 37% experienced a health emergency, and 29% had their hours reduced.[5] In 2016, "just under one-third" of adults or a family member living with them experienced at least one financial hardship. Again, the most common causes were a family member's (13% of adults) or their own health problems (12%), personal job loss (7%) or reduced hours (8%), or a partner's job loss (4%) or reduction in hours (5%).[6]

16. The Federal Reserve also found that those who experienced a financial hardship were more than twice as likely to use an alternative financial service (a tax refund anticipation loan, a pawn shop loan, a payday loan, auto title loan, or a paycheck advance) as those without a hardship, at all income levels. Even among those with household incomes greater than $100,000, 3% of those who experienced a hardship used an alternative financial service. Among those with incomes under $40,000, 11.8% did so.[7]

17. A second reason for the demand for liquidity credit is that many households cannot cope with even small emergency expenses. Credit enables consumers to cope with these emergencies without the need for sharp reductions in other expenditures. The Federal Reserve Board also found that in 2016, faced with a $400 emergency expense, 44% of consumers could not pay without borrowing or selling something, down slightly from 50% in 2013.[8] Among those who could not pay cash, 5% would use a payday loan, a deposit advance, or an overdraft. Twenty seven percent said they simply would not be able to pay.[9] Twenty three percent of adults expect that they will have to leave some of the current month's bills unpaid or only partially paid.[10] A $400 emergency would leave an additional 13% unable to fully pay their bills.[11]

---

[4] J. Howard Beales III and Anand M. Goel, Small-Dollar Installment Loans: An Empirical Analysis, Navigant Economics, March, 2015, at 3.
[5] Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2014, 17 (May 2015). https://www.federalreserve.gov/econresdata/2014-report-economic-well-being-us-households-201505.pdf..
[6] Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2016, 25 (May 2017). https://www.federalreserve.gov/publications/files/2016-report-economic-well-being-us-households-201705.pdf .
[7] Federal Reserve 2017 at 26.
[8] Federal Reserve 2017 at 26.
[9] Federal Reserve 2017 at 27.
[10] Federal Reserve 2017 at 27.

Inability to pay other bills after a $400 emergency is more common among blacks (50%) and Hispanics (51%) than among whites (32%).[12] In 2015, the last year for which the Federal Reserve reported data by income, 66% of households with incomes under $40,000 could not cover a $400 emergency, compared to 46% among all consumers.[13]

18. A third reason for the demand for liquidity credit is that many households have volatile incomes. Construction workers, for example, are likely to work fewer hours when the weather is bad and therefore earn less, or a natural disaster may cause business shutdowns that reduce incomes. Short term credit permits consumers to maintain a relatively stable level of consumption, despite fluctuations in income. The Federal Reserve Board reports that income volatility is widespread. Thirty-two percent of adults say their income varies from month to month, with 10% reporting their income often varies "quite a bit" from month to month.[14] The most frequently mentioned cause of income variability (43% of those experiencing volatility) is an irregular work schedule. Overall, the Federal Reserve Board reported that 13% of adults have struggled to pay their bills at least once in the last year because of income volatility (40% of those experiencing volatility).[15] Consistent with this finding, the Census Bureau reports that 19% of users of alternative financial services use them to make up for shortfalls in income.[16]

19. Similarly, the J.P. Morgan Chase Institute published an analysis of a sample of 1 million accounts, drawn from a total of 6 million customers with a checking account that had at least 5 outflows (debit transactions) every month for 3 years (October 2012-September 2015). Of these customers, 55% experienced average month-to-month changes in total income of more than 30%; an additional 38% experienced average monthly income changes of 5-30%.[17] Income volatility was higher for younger customers, with 70% having experienced an average income change of more than 30%, and among the lower income quintile, where 74% experienced this level of volatility.[18] Forty-three percent of all person-months showed an income decline of at least 5%.[19]

20. Income and spending mismatches are also a consequence of the calendar. In the J.P. Morgan study, 55% of people who stayed in the same job and were paid every two weeks experienced a "3 paycheck" month during the study period. Among those paid weekly, 25% experienced a "5 paycheck" month.[20] When bills such as the rent are due monthly, cash is much tighter in some months than others.

---

[11] Federal Reserve 2017 at 27.
[12] Federal Reserve 2017 at 27.
[13] Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2015, at Figure 12 (May 2016), https://www.federalreserve.gov/econresdata/2016-economic-well-being-of-us-households-in-2015-Economic-Preparedness-and-Emergency-Savings.htm
[14] Federal Reserve 2017 at 23.
[15] Federal Reserve 2017 at 24.
[16] Bhutta, Neil, Jacob Goldin, and Tatiana Homonoff, Consumer Borrowing after Payday Loan Bans, 59 Journal of Law and Economics 225 (2016) at Table 4.
[17] JP Morgan Chase & Co. Institute (2016), Paychecks, Paydays, and the Online Platform Economy, February, at 9. https://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf.
[18] J.P. Morgan at 10.
[19] J.P. Morgan at 13.
[20] J.P. Morgan at 16.

21. Similarly, the US Financial Diaries project tracked detailed financial information for a sample of 244 low and moderate income households for a period of 8 months. The study found that the average household experienced 2.5 months where income was more than 25% below average, and 2.6 months where income was more than 25% above average.[21] Volatility was higher for households at or below the poverty line, but for households up to 300% of the poverty line, variability remained high and steady.[22]

22. Consumers who take out small dollar installment or payday loans, auto title loans, pawn loans, or use deposit advance products are on average less educated, from larger households, disproportionately African American, and have below-average incomes.[23]

23. For individual consumers, the benefits of credit will depend in significant part on the reason they are borrowing. The benefits of borrowing to cope with financial distress depend on the cause, magnitude, and anticipated duration of the distress. Benefits of borrowing to cope with unanticipated expenses depend on the size and nature of the expense. Benefits of borrowing to cope with income instability depend on the size of expenses coming due and the expected time until additional income is available. Thus, the benefits of borrowing differ from individual to individual, and even for a given individual, from one borrowing occasion to another.

The Cost of Small Dollar Loans

24. Like all forms of small dollar, short term liquidity credit, payday loans are expensive, particularly when measured by an APR. The Consumer Financial Protection Bureau ("CFPB") reports that a storefront payday loan offered on the median terms has an APR of 391%.[24] These high costs stem from the basic economics of lending.

25. To originate a loan, a lender must find a customer, take and process an application, evaluate the available information to determine whether to lend and if so how much, prepare the necessary documents, disburse the money, process payments, and manage collection efforts. These costs are essentially fixed costs, independent of the size of the loan. As one study noted, "the cost of taking an application for a $500 personal loan, for example, may not be much different from that for a $2,000 personal loan or a $30,000 automobile loan."[25] Or as a community banker put it, "More or less, it costs them the same amount to make a $500 loan as it does a $20,000 loan."[26] The smaller the loan and the shorter the term, the larger will be the APR for a loan that merely recovers these costs.

26. Loan fees are also high because of the high default rates that characterize small dollar, short term liquidity lending. The CFPB estimated that in 2011-12, charge offs of uncollectible payday loan amounts were nearly half of the average amount of outstanding

---

[21] Hannagan, Anthony, and Jonathan Morduch (2015), Income Gains and Month-to-Month Income Volatility: Household evidence from the US Financial Diaries (March 16). http://www.usfinancialdiaries.org/paper-1.
[22] Hannagan and Morduch 2015.
[23] Beales and Goel at 5.
[24] CFPB, Notice of Proposed Rulemaking, 81 Fed. Reg. 47864, 47869 at note 31.
[25] Durkin et al. *Consumer Credit and the American Economy* 180. Oxford University Press, 2014.
[26] Yuna Hayashi, Banks Eye Return to Payday Loans, Wall Street Journal, 5/22/17, p. B8, quoting Joseph Gormley, Assistant vice president of regulatory policy at the Independent Community Bankers of America.

loans.[27] Because the loans are unsecured, fees must be high enough to recover the charged off principal from borrowers who do repay if the lender is to remain in business.

27. Lenders have incentives to incur costs to better predict which consumers will default, because other things being equal a loan that is actually repaid will be more profitable than one that ends in default. There is evidence that lender loan decisions do in fact differentiate among consumers based on risk. In a Navigant Economics study of the small dollar installment loan market that I coauthored, loans with below median interest rates (measured by the APR) were more likely to be paid off than those with higher interest rates.[28] This is consistent with lenders offering better terms to consumers who are better credit risks.

28. Although underwriting of small dollar loans occurs, investments in underwriting are likely more limited than for larger or longer term loans. The larger the potential losses, the more lenders are likely to invest to improve their risk predictions. Spending more on risk reduction than the value of the potential savings does not help either lenders or borrowers. Other things being equal, default rates will therefore be higher on smaller loans than on larger ones – if the amount at risk is small, the investment to limit that risk will be small as well. For example, mortgage lenders commonly pull credit reports on a potential borrower from all three of the national credit reporting agencies. Given the large amount of the loan, this investment in risk reduction is worthwhile. For a $500 loan, however, the avoided losses are not sufficient to justify significant investments.

29. Although expressed as an annual percentage rate the cost of small dollar loans is high, the APR is not an indicator of profitability. Indeed, the payday lending business is not extraordinarily profitable. Entry into the industry is relatively easy, and competition for borrowers is substantial. These are not conditions that typify highly profitable industries. One study of industry profitability compared seven publicly traded payday lenders to six commercial lenders, and found that mainstream commercial lenders had substantially higher profit margins than the payday lenders.[29]

Small Dollar Installment Loans

30. A relatively recent alternative to the traditional payday loan is the rise of multiple payment small dollar installment loans, through both storefronts and online lenders. Installment loans tend to be larger than traditional payday loans, and longer term. Most importantly, they are generally fully amortized. When payments are complete, the principal and all fees are paid in full; unlike the payday loan, the principal is not repaid in a balloon payment at the end of the loan term.

31. My study of the small dollar installment loan market utilized confidential, account level data from four lenders, offering installment products both online and through storefronts.[30]

---

[27] CFPB, Notice of Proposed Rulemaking, 81 Fed. Reg. 47864, 47874 at note 88.
[28] Beales and Goel at 26.
[29] Aaron Huckstep, Payday Lending: Do Outrageous Prices Necessarily Mean Outrageous Profits? 12 Fordham J. Of Corp. and Fin Law 203-231 (2007).
[30] Beales and Goel at 11.

All loans were made between January 2012 and September 2013, in 16 different states; all loans in the primary sample were state-licensed loans.[31]

32. The median installment loan was for $900, with a term of 181 days.[32] It was payable in 12 installments of $158, with an APR of 294.9%.[33] In the CFPB's 2013 study, the median APR on single payment loans was 322%.[34] In our installment loan sample, 45% of the loans were made online; 55% were made through storefronts. Of the loans sampled, 68.88% were paid in full.[35]

33. Our sample included a significant number of loans where another loan was issued shortly after the end of the first loan.[36] Of the loans that could have been renewed within our sample period, 20 to 25% were followed by another loan within either 7 or 14 days.[37] The median loan sequence from the same lender increased the principal by 20%.[38] This suggests that repeat borrowers were those the lender judged less risky, and the lender was therefore more willing to extend additional credit. These repeat borrowers were slightly more likely to pay the loan in full than those who took out only one loan (53% vs. 50% for those who borrowed again within 14 days).[39] Even with a new loan, the loan sequence was generally over (either by repayment or default) before the end of the original loan term.[40]

34. Because installment loans are generally fully amortized, our study found there is little chance of consumers becoming trapped by repeat borrowing. With an installment loan, rolling the loan over is generally not an option if the borrower is unable to make a payment. Moreover, at the end of the loan term, the principal is paid in full; there is no balloon payment that may be a relatively large fraction of the borrower's paycheck.

35. The cost structure of small dollar installment loans is similar to the cost structure of other small dollar loans discussed above. Costs are largely independent of the size of the loan and default rates are high. In addition, many installment lenders are nonbank lenders who lack a funding base from deposits. A major concern of these lenders is the cost of capital – "a key pain point for many nonbank online lenders."[41] The lowest cost source of financing is securitization.[42]

36. The Plain Green and Great Plains loans are small dollar installment loans similar to those included in my study and discussed above. The Truth in Lending disclosure for a $250

[31] Beales and Goel at 11.
[32] Beales and Goel, Table 1.
[33] Beales and Goel, Table 1.
[34] CFPB, Payday loans and deposit advance products, White paper (2013), Table 1.
[35] Beales and Goel, Table 1.
[36] Beales and Goel, Tables 7-10.
[37] Beales and Goel, Tables 7-10.
[38] Beales and Goel, Tables 7, 9.
[39] Beales and Goel, Table 9.
[40] Beales and Goel, Table 12. The average sequence duration was 66.8% of the original loan term. 50.8% of all sequences were paid in full. A sequence is additional loans from the same lender within 14 days after the term of the original loan. Id.
[41] Steve Fromhart and Chris Moller, Funding takes center stage for nonbank online lenders, Deloitte Insights, July 9, 2018.
[42] Id. at Figure 5.

Plain Green loan, for example, reveals that the loan will be repaid in four monthly payments of approximately $98.56 for an APR of 377.95%.[43] These payments are less likely to strain consumer's budgets than the typical payday loan, which, at $15 per $100 borrowed would require a payment of $287.50 after either two or four weeks. Similarly, the disclosure for a $1,000 two year loan reveals 24 monthly payments of $127.50, again a relatively manageable amount compared to payday loan payments.[44] Similarly, a Great Plains disclosure statement for a $200 loan identifies 8 biweekly payments of $47.93 and an APR of 448.76%.[45] A Great Plains loan for $1100 has 30 biweekly installments of $121.21, and an APR of 249.05%.[46] The fact that there is no prepayment penalty allows consumers to pay off the loan early, as many consumers in our installment loan study did.

37. The terms of the Plain Green and Great Plains products are appropriately disclosed to consumers. The Plain Green marketing materials for prescreened offers are straightforward. They highlight that neither perfect credit nor home ownership is required, that the installment loans provide more time to repay than the typical payday loan, the absence of prepayment penalties or hidden fees, and that payment history is reported to a major credit bureau. A footnote discloses that Plain Green is a tribal lender and that consumers wanting to have their state law apply should seek a state licensed lender.[47] Although the material does not disclose the details of the fee structure, it does include the highest and lowest APRs on Plain Green Products.[48] Full details of the payment structure are provided in the Truth in Lending disclosures.[49]

38. The Great Plains direct mail pieces are similarly straightforward. They emphasize the online application process, the fast availability of cash, and payments over time. A footnote includes information about the range of loans and APRs available.[50] Again, full payment details are provided in the Truth in Lending disclosures.[51]

39. Plain Green and Great Plains make appropriate disclosures both in their marketing materials and in the Truth in Lending disclosures. The agreements that the Virginia and Texas Claimants entered into with Plain Green and Great Plains include clear choice of law provisions.[52] Consumers therefore have the information they need to make an informed decision about whether to take out a loan.

---

[43] TF-VA0277839. I say "approximately" because the fourth and final payment is $.03 higher.
[44] TF-VA0276453.
[45] TF-VA0123431.
[46] TF-VA0120666.
[47] TF-VA0125975.
[48] TF-VA0125975, TF-VA0125978.
[49] TF-VA0277839.
[50] TF-VA0286946.
[51] TF-VA0123432.
[52] E.g., Consumer Installment Loan Agreement between Stephanie Edwards and Great Plains, Loan No. 73346057 (attached to Proof of Claim No. 41330); Consumer Installment Loan Agreement between Darlene Gibbs and Plain Green, Loan No. 72770294 (attached to Proof of Claim No. 41319).

Online Lending

40. Online transactions offer significant advantages for Indian tribes interested in economic development. Any consumer-facing business requires access to customers. Because Indian reservations are frequently some distance away from population centers, physical access to customers is limited. For some products or services, such as gambling, customers may be willing to travel an appreciable distance, but willingness (and ability) to travel for short term credit is more limited.[53] Completing the transaction online avoids the need for transportation arrangements that may be costly in terms of both time and money.

41. Online lending also offers benefits to consumers. Because loan decisions are frequently automated, decisions are made and approved funds are available to the consumer very quickly. In addition, some consumers value the anonymity of an online transaction, which avoids the need to admit the need for credit to a loan officer sitting across the table.

42. Online lending poses particular challenges because of the ever-present risk of fraud inherent in all online transactions. E-commerce sales were less than 10% of retail sales,[54] but accounted for an estimated 45% of credit card fraud in 2014. Card fraud losses in card not present transactions, many online, were $10 billion.[55]

43. Detecting online fraud is likely to be particularly difficult in first-time or one-time-only transactions. Credit card issuers have access to detailed transactions histories for the cards they issue. That history increases the likelihood of detecting a transaction that does not fit the pattern for a particular account, and therefore may be fraudulent. No history is available when an online lender considers a new customer for the first time. Moreover, there is no practical way to verify much of the information on which a lender must rely. The result is that even with the same nominal underwriting standards for lending, losses are likely to be significantly higher in online transactions than in other contexts.

44. In our study of the small dollar installment loan market, 77% of installment loans made through a storefront were paid in full. For online loans, only 59% were paid off.[56]

45. Consistent with the risk of fraud in online markets, the tribal loan products experienced first payment defaults on between 10 and 25% of loans from September 2014 to September 2015.[57]

46. One way to control fraud risks with online lending is through the use of credit bureau prescreening. Even though the transaction is completed online, the fact that the consumer has a credit file and meets pre-selected criteria provides greater assurance that the loan is not

[53] Studies of the effect of state restrictions on payday lending have often used the distance to a neighboring state with more permissive rules as a measure of access to loans.
[54] https://www.census.gov/retail/mrts/www/data/pdf/ec_current.pdf.
[55] http://www.creditcards.com/credit-card-news/credit-card-security-id-theft-fraud-statistics-1276.php.
[56] Beales and Goel, Table 3.
[57] TF-VA0336999. Board of Directors Meeting, Oct. 16, 2015.

fraudulent. The Plain Green and Great Plains programs have used prescreened offers.[58] Marketing to former customers serves a similar purpose.[59]

Costs of Alternatives to Small-Dollar Loans

47. Although short term liquidity credit is expensive, alternatives to payday loans or small dollar installment loans are also costly. One such alternative is pawn shop loans, which have an average fee of $20 per $100 borrowed for one month.[60] The implied APR is about 250%. Neil Bhutta of the Federal Reserve Board and his colleagues at Stanford and Cornell find evidence that payday loan bans lead to a 60% increase in the mean usage of pawn shop loans compared to states where payday loans are legal.[61]

48. Another alternative to payday or small dollar installment loans is bank overdraft protection. As Bhutta and his colleagues note, however, "the implied interest rates and fees associated with overdraft loans typically exceed the interest charged by payday lenders for small loans."[62] That, of course, assumes the overdraft loans are repaid. When they are not, the result may be involuntary account termination. Bhutta finds an increase in involuntary account closures after payday lending bans.[63]

49. If formal credit is not available, consumers may be forced to turn to substitutes that are effectively credit. Delaying payments on bills that are due is effectively borrowing from that service provider. Frequently, as with utility payments or rent, there are late charges for such delays that are effectively costs of credit. If delays are frequent or prolonged, utility service may be terminated, leading to the need to pay additional charges to reconnect and in all probability the need to post a larger security deposit. Short term liquidity credit may well be the low cost alternative.

50. Great Plains Lending reports that its average effective APRs are below, and often substantially below, the cost of alternatives. Its lowest price loan had an APR of 199%; the average APR was 356%. In contrast, the implicit APR on a late fee on a $100 credit card balance is 756%; for a late payment on a $100 utility bill the APR is 1225%.[64] These costs for alternative products are also substantially higher than the maximum APR for the Plain Green (374%)[65] product.

The Benefits and Costs of Small-Dollar Loans to Consumers

51. As discussed above, the benefits of borrowing to consumers depend on the individual consumer's motive for borrowing. Benefits of borrowing to smooth over financial

---

[58] E.g. TF-VA0349380 (Plain Green); TF-VA0286945 (Great Plains). Direct mail marketing, which includes prescreened offers, has been a primary driver of growth. TF-VA0554613 (Plain Green Program Update, Nov. 20, 2012).
[59] E.g., TF-VA002734 (Plain Green).
[60] Bhutta et al at 229.
[61] Bhutta et al. at 246.
[62] Bhutta et al at 229.
[63] Bhutta et al at 247.
[64] TF-VA0366750 (data are for 2013).
[65] TF-VA0125978.

hardship depend on the size and expected duration of the hardship. Similarly, benefits of borrowing to cover an unanticipated expense depend on the size and nature of the expense. Covering unexpected medical emergency expenses, for example, may be more important to the consumer than covering an unexpected leak in the roof. Benefits of borrowing to smooth income volatility depend on the expected size and duration of the income shortfall, as well as the nature of the expenses that must be paid before additional income is expected. Benefits of borrowing may be greater, for example, for the consumer who faces termination of utility service because of repeated late payments than for the consumer who might be late for the first time ever. The reason for borrowing is also likely to affect the desired size of the loan, which will likely influence the cost of the loan and impact the availability of alternatives.

52. The direct cost of an installment loan will vary with each individual's creditworthiness. Lower risk borrowers will likely be offered lower interest rates and larger loans than those who pose more risk. Borrowers who paid off a previous loan with the same lender will likely be offered better terms than those with whom the lender has no experience, particularly in the online lending environment. In my study of installment loans, loans with lower interest rates and larger amounts borrowed were more likely to be repaid.[66] We also found that borrowers who paid off their first loan in full were more likely to repay subsequent loans from the same lender.[67]

53. Individual consumers can also consider a variety of alternative sources of credit. As discussed above, these alternatives are also expensive, frequently costing more than installment loans. Moreover, the availability of these alternatives is likely to differ from consumer to consumer, and from place to place. Given the benefits of borrowing in any fashion, the particular benefit of borrowing through an installment loan is the often lower cost of such a product as discussed above. A fully amortized loan also offers benefits because it reduces the risk of repeat borrowing when it comes due.

54. Some consumers have easy access to traditional payday loans or an auto title loan, but others do not. Some consumers may have access to bank overdraft protection or a bank personal loan; others may lack such access. Some live in neighborhoods with pawn shops or have valuable assets that can be pawned; others may not. Some may have access to a paycheck advance from their employer; others do not. Even if some access to a particular alternative is available, the terms for that alternative are likely to vary from one consumer to another.

55. In general, consumers will only borrow money if, in their own view, the benefits of borrowing exceed the cost of the loan. The fact that a consumer took out a loan implies that in the consumer's view at the time, the loan would provide net benefits. As noted above, Plain Green and Great Plains borrowers made this decision with full information on the costs of the particular financial product they chose.

56. Competitive markets will offer consumers the best possible terms and conditions for financial products. Lenders have strong incentives to compete by offering consumers an improved product, a process that has led to the growth of small dollar installment loans as an

[66] Beales and Goel, Table 5.
[67] Beales and Goel, Table 12.

alternative to the traditional payday loan product. It was because banks "can reach a significant portion of [the short-term, small-dollar loan market], and bring additional options and more competition to the marketplace while delivering safe, fair, and less expensive credit products that support the long-term financial health of their customers,"[68] that the Comptroller of the Currency recently revised previous guidance to "encourage[] banks to offer responsible short-term, small-dollar installment loans."[69] Enhanced competition can improve the product options available to consumers. Interest rate ceilings will only reduce the availability of credit, particularly to those with the worst credit history.[70]

THE DIVISION OF A PRODUCTION PROCESS IS DETERMINED BY FUNDAMENTAL ECONOMIC FACTORS

57. One of the key functions of markets in general is to determine the most efficient way to divide up the tasks that are necessary to produce a product or service. A well-known Adam Smith conclusion is that "The Division of Labor is Limited by the Extent of the Market."[71] If the market is large enough, labor can be divided more finely to capture the gains from specialization in a single task. Smith was primarily concerned with the division of tasks within a single firm, but the same question arises in the allocation of economic functions between different entities involved in producing a product or service.

58. There is an extensive literature in both economics and business strategy concerning the decision to "make or buy." All firms must decide how to organize their activities.[72] Along with many other decisions, they must determine whether it is more efficient to produce a necessary input for themselves, or whether it is more efficient to purchase that input from an outside supplier. The reasons for different divisions are often subtle, and not always apparent at first glance. Nonetheless, how the task of providing a good or service is divided has important implications for the performance of the economy.

59. Making decisions within a firm or through the market are not the only possible choices. There are hybrid cases that blend elements of intra-firm and inter-firm transactions to achieve an economic objective. One such example is franchising. Franchise agreements are structured to control potential problems of shirking, quality control, and pricing. They must also divide activities in ways that capture available economies of scale that may differ for different activities.[73] Legal requirements, such as the test for determining whether an individual is a contractor or an employee, are crucial constraints in developing the most efficient structure.

---

[68] Testimony of Comptroller of the Currency Josephy M.Otting before the Senate Committee on Banking, Housing, and Urban Affairs, June 14, 2018.
[69] OCC Bulletin 2018-14.
[70] See Colleen Honigsberg, Robert J. Jackson, Jr., and Richard Squire, How does Legal Enforceability Affect Consumer Lending? Evidence from a Natural Experiment, 60 Journal of Law and Economics 673 (2017).
[71] George J. Stigler, 59 Journal of Political Economy 185-193 (June, 1951).
[72] A classic text on the subject is Paul Milgrom and John Roberts, Economics, Organization, and Management (Prentice Hall 1992). See also Paul H. Rubin, Managing Business Transactions: Controlling the cost of Coordinating, Communicating, and Decision Making (The Free Press 1990).
[73] Paul H. Rubin, The Theory of the Firm and the Structure of the Franchise Contract, 21 Journal of Law and Economics 223 (1978).

60. Among other things, the organization of economic activity must align incentives to minimize inefficiencies that result when cooperating parties have different incentives. This incentive alignment is a key aspect of corporate governance.[74]

61. Economic organization must also control the costs of information, the costs of communicating and the costs of making decisions. In some instances, these factors lead to integration, with many functions performed within a single firm. In other instances, they lead to decentralized networks of firms that each specialize in a small piece of the overall production problem. Moreover, different firms may make different choices about what they believe is the most efficient arrangement. Competition in the marketplace over time will eventually reveal the institutional arrangements that best solve a particular economic problem.

62. The emergence and growth of the Internet has substantially changed the cost of communicating and coordinating business decisions. Often known as "fintech," numerous companies such as Think Finance have emerged with specialized expertise in providing services and platforms that facilitate both decisions and coordination among firms cooperating to produce value for consumers. These changes have led, and will continue to lead, to significant changes in the most efficient organization of economic activity and the most efficient division of effort and responsibility between different business organizations. The structure of lending today is different than the structure that characterized lending in earlier decades because the fundamental economic factors that influence economic organization are significantly different than they were in the past. Because fundamental economic factors are continuing to change, institutional arrangements are likely to continue to change as well.

63. I consider two examples in the consumer financial services industry where economic factors have resulted in finely divided functions in what would appear to be a relatively simple production process: mortgage financing and credit card processing. In each case, there are numerous specialized entities like the Think Finance entities that perform a small but necessary task in producing a service and delivering it to consumers.

Mortgage Financing

64. Although there was a time when mortgages were typically financed, issued, and serviced by a single entity, usually a bank or a savings and loan, the mortgage market today has divided the various functions of mortgage finance among a number of different parties. One study of the mortgage lending function identified six distinct functions that are necessary to issuing a mortgage: (1) Find a borrower who wants a particular type of loan; 2) and a lender willing to invest in that loan; (3) analyze the borrower's qualifications and follow the procedures needed to meet legal requirements and the underwriting requirements of the ultimate investors; (4) consummate, close, and record the loan; (5) service the loan for as long as it is outstanding, including administering an account to distribute funds to the various entities with a financial interest in the loan; and (6) make payments to the capital providers.[75] Since the early 1970s, these functions have increasingly been separated, and performed by different institutions,

[74] Michael C. Jensen and William H. Meckling, Theory of the Firm: Managerial behavior, agency costs, and ownership structure, 4 Journal of Financial Economics 305 (1976).
[75] Michael G. Jacobides, Industry Change Through Vertical Disintegration: How and Why Markets Emerged in Morgtage Banking, 48 Academy of Management Journal 465, 472 (2005).

facilitated by the purchase and sale of the underlying mortgage instruments. This division of functions has generally reduced the cost of mortgages, to the benefit of consumers.

65. In a home mortgage transaction, an originator such as mortgage broker typically finds the potential buyer and takes an application, which it then provides to a mortgage bank. Mortgage brokers, who may deal with a number of different banks, are an attractive alternative because they generally have lower costs than banks. A bank assesses creditworthiness and makes the loan. Nonbank originators such as Quicken Loans have also emerged online and captured an increasing share of mortgage originations.[76]

66. The mortgage originator generally sells the loan to a securitizer, such as Fannie Mae, Freddie Mac, or a private investment bank. This sale allows the originator to avoid both the interest rate risk (the risk that interest rates will increase and reduce the market value of the mortgage), the prepayment risk, and the credit risk of the mortgage; it can instead use its capital to make additional loans. The (private) securitizer creates a special purpose vehicle that holds the mortgages, and issues securities backed by the cash flow from the mortgages, which it sells to a variety of investors. Some securitizers, such as Fannie Mae, insure the credit risk inherent in the mortgage because they guarantee the payments. Private securities may provide a variety of different credit enhancements to reduce credit risk, such as overcollateralization (interest payments on the securities are lower than the average interest rate on the underlying loans), letters of credit (which substitute the credit of a bank or other issuer for the credit of the consumer borrower), or senior subordinated structure (in which subordinated or "junior" investors do not receive principal payments until senior holders have been paid in full). Credit risk can also be reduced through private mortgage insurance or other federal programs such as the Federal Housing Administration. The investors in mortgage backed securities are generally institutional investors such as pension funds, hedge funds, and insurance companies. These investors are more willing to take risks than the mortgage originator or lender. This reduces the cost of providing mortgage credit, because investors more willing to take risk do not have to be paid as much for taking it.

67. The securitizer sells servicing rights to a mortgage servicer. After the loan is issued, the servicer is the point of contact with the borrower. The servicer collects payments, generates loan statements, and handles customer service, including disputes or inquiries about payment amounts, due dates, or processing errors. Servicers also provide payoff quotes when requested. The servicer is also responsible for keeping the loan current, sending delinquency notices when payments are late and undertaking other collection efforts. The servicer must also make sure that taxes and insurance on the property are current, to protect the security interest of the investors. The servicer is the administrator of accounts to take in funds and disburse them to the various entities with an interest in each particular mortgage, including the securitizer or the investors in the mortgage backed securities. Servicers frequently outsource many of these activities. For example, many may contract with a lockbox provider to handle mailed consumer payments or a company that specializes in generating regular statements for consumers.

[76] Andrea Riquier, Big Banks are fleeing the mortgage market, MarketWatch.com, Feb. 12, 2016, http://www.marketwatch.com/story/big-banks-are-fleeing-the-mortgage-market-2016-02-12.

68. Securitization through the issuance of asset backed securities (ABS) is common throughout the financial sector. The basic structure is the same as in the mortgage market. The asset is sold to a securitizer, who creates a special purpose vehicle to hold the asset and issue securities based on the cash flow from the underlying asset. Auto loans, credit card receivables, equipment loans, and student loans are all financed in part by the issuance of significant volumes of ABS.[77] Other types of assets are often securitized as well.

69. As noted above, the ongoing changes in technology collectively known as “fintech” are likely to lead to rearrangement of the institutional relationships in consumer lending markets. The emergence of peer-to-peer (“P2P”) lending offers one example. In this arrangement, a P2P platform creates a database of prospective borrowers and potential lenders or investors and offers loans on the platform. Applicants enter information online and request the terms they desire. The platform posts applicants’ credit scores either directly or indirectly. Potential investor-lenders then review applicants and decide whether to invest in a particular loan, funding it either entirely or partially. The platform may perform loan servicing, or it may contract with a third party for servicing. As one review of P2P lending concluded, “Technology is disrupting consumer finance.”[78] Given these new institutions, the most efficient allocations of functions and responsibilities between the various cooperating parties is not clear, and is likely to evolve with experience in the marketplace. For example, companies that started as “pure” P2P lenders matching individual borrowers with individual lenders are now partnering with banks that are willing to make loans to consumers meeting the bank’s underwriting standards. Market experience will ultimately determine the low cost structure for lending arrangements in the platform era. Think Finance’s platform and its marketing operations are one example of many companies innovating with different institutional arrangements for providing a traditional consumer financial product.

Credit Card Processing

70. From the perspective of the consumer, a typical general purpose credit or debit card transaction involves three parties: the consumer, the merchant, and the bank that issued the card and sends the bill. In fact, however, the typical transaction involves numerous other parties, and, depending on the parties, may be organized in a number of different ways.[79] These parties include:

a) A Merchant acquirer, who signs up merchants for the network. The merchant acquirer may be a bank or may partner with a bank, because only banks can access the Visa and Mastercard networks.
b) The network, run by Visa or Mastercard, which establishes rules and standards for participation and facilitates the exchange of information among the parties.
c) The merchant, who sends transactions details to

[77] See SIFMA (Securities Industry and Financial Markets Association), U.S. ABS Issuance and Outstandings, available at http://www.sifma.org/research/statistics.aspx.
[78] Adair Morse, Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending, NBER Working Paper 20899 (January 2015).
[79] The following description is based on Ramon P. DeGennaro, Merchant Acquirers and Payment Card Processors: A Look inside the Black Box, Federal Reserve Bank of Atlanta Economic Outlook, First Quarter 2006.

1. The front end processor, which identifies the issuing bank and sends a request to obtain authorization for the transaction, and reports the result back to the merchant.
2. The issuing bank, which issues the cards and conducts fraud checks, which may involve one or more third party service providers, and verifies that the customer has sufficient credit or funds. Numerous companies provide fraud detection services, including all of the three largest credit reporting agencies and many others.

d) Once the transaction is approved, it must be cleared, which involves several entities:
   1. The Merchant Accounting System (MAS) services the particular merchant's account and delivers the transaction to the appropriate network (i.e, Visa, Mastercard, or some other network). The MAS deducts fees and delivers processing instructions to the Automated Clearing House network. The ACH is the network for settling checks and other forms of electronic payments between banks and other participants.
   2. The MAS also delivers transaction details to Interchange, part of the Visa or Mastercard network, which determines and deducts fees.
   3. Interchange sends the transaction to the issuing bank, which bills the cardholder and collects the balance.

e) Additional parties, and functions, are involved if the issuing bank securitizes its accounts receivable, as many banks do.

71. To be sure, the structure of the economic relationship is influenced by the legal rules, a subject that is the domain of the discipline of law and economics. In the particular case of credit card processing, Regulations Z and E have a significant influence on the structure, because they limit the consumer's liability for fraudulent transactions. Contracts between the various other parties must therefore allocate the risk of fraud losses among themselves.

* * *

72. In summary, there is a significant and legitimate consumer demand for small dollar loans, arising from financial hardships, even small unanticipated expenses, and income volatility. Fully amortized installment loans substantially reduce the risk of the debt trap that can occur with traditional payday loans and are therefore generally a better product for consumers. The cost of such loans is high, because many of the costs of making a loan are fixed costs and because lenders often experience high default rates. Small dollar installment loans are likely less costly than alternative forms of credit or the available substitutes for credit. The benefits and costs of any particular source of liquidity credit vary significantly from consumer to consumer. Consumers have the information they need to make informed decisions about whether to take out a Plain Green or Great Plains loan. Although the various functions of making a loan are divided among different parties, such arrangements are commonplace in financial services and other industries, driven by fundamental economic factors.

73. Because discovery is continuing as of the date of this report, I expect that I will continue to review documents and testimony related to the topics discussed in this report. Accordingly, I reserve the right to supplement my report based on materials not available at the time I prepared it, including any reports that other experts might submit.

Howard Beales

References

Beales, J. Howard III, and Anand M. Goel, Small-Dollar Installment Loans: An Empirical Analysis (March, 2015). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2581667.

Bhutta, Neil, Jacob Goldin, and Tatiana Homonoff, Consumer Borrowing after Payday Loan Bans, 59 Journal of Law and Economics 225 (2016).

CFPB, Payday loans and deposit advance products, White paper (2013).

CFPB, Notice of Proposed Rulemaking, 81 Fed. Reg. 47864 (2016).

Durkin, Thomas A., Gregory Elliehausen, Michael E. Staten, and Todd J. Zywicki. *Consumer Credit and the American Economy*. Oxford University Press, 2014.

Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2014, (May 2015). https://www.federalreserve.gov/econresdata/2014-report-economic-well-being-us-households-201505.pdf.

Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2015, at Figure 12 (May 2016), https://www.federalreserve.gov/econresdata/2016-economic-well-being-of-us-households-in-2015-Economic-Preparedness-and-Emergency-Savings.htm

Federal Reserve Board, Report on the Economic Well-Being of U.S. Households in 2016, (May 2017). https://www.federalreserve.gov/publications/files/2016-report-economic-well-being-us-households-201705.pdf.

Fromhart, Steve and Chris Moller, , Funding takes center stage for nonbank online lenders, Deloitte Insights,, July 9, 2018.

Hannagan, Anthony, and Jonathan Morduch (2015), Income Gains and Month-to-Month Income Volatility: Household evidence from the US Financial Diaries (March 16). http://www.usfinancialdiaries.org/paper-1.

Yuna Hayashi, Banks Eye Return to Payday Loans, Wall Street Journal, 5/22/17, p. B8

Honigsberg, Colleen, Robert J. Jackson, Jr., and Richard Squire, How does Legal Enforceability Affect Consumer Lending? Evidence from a Natural Experiment, 60 Journal of Law and Economics 673 (2017).

Huckstep, Aaron, Payday Lending: Do Outrageous Prices Necessarily Mean Outrageous Profits? 12 Fordham J. Of Corp. and Fin Law 203-231 (2007).

JP Morgan Chase & Co. Institute (2016), Paychecks, Paydays, and the Online Platform Economy, February. https://www.jpmorganchase.com/corporate/institute/document/jpmc-institute-volatility-2-report.pdf.

Adair Morse, Peer-to-Peer Crowdfunding: Information and the Potential for Disruption in Consumer Lending, NBER Working Paper 20899 (January 2015).

EXHIBIT A

CURRICULUM VITA

J. Howard Beales, III

Department of Strategic Management
and Public Policy
George Washington University
Washington, D.C. 20052

2709 N. Norwood St.
Arlington, VA 22207

Phones: (703) 527-3245(h); (703) 346-1290(m); (202) 994-4760 (o)
FAX: (703) 525-2755; (202) 994-8113
email: hbeales@gwu.edu

Born June 20, 1950
married, two children

EDUCATION AND ACADEMIC HONORS

The University of Chicago, Chicago, Illinois. Ph.D. in Economics awarded June, 1978. Concentrated in Industrial Organization and Macroeconomic Theory. Received fellowships from the Earhart Foundation and the Walgreen Foundation.

Georgetown University, Washington, D.C. Awarded B.A. May, 1972. Magna Cum Laude, Phi Beta Kappa. Major in Economics. Named the outstanding student in economics by vote of the department faculty; numerous awards for excellence in intercollegiate debate.

WORK EXPERIENCE

Professor of Strategic Management and Public Policy, George Washington University, August, 1988 - June, 2001; August, 2004 - Present. (Assistant Professor, 1988; Associate Professor 1991; Professor, 2010.) Department Chair, January 2014 – June 2017. Teaching courses in applied microeconomics, managerial economics, and the relationship between business and government. Research interests include law and economics, economic and legal aspects of marketing and advertising, the new drug approval process, and other aspects of government regulation of the economy. Departmental nominee for the Oscar and Shoshana Tractenberg Prize for Faculty Scholarship, 1992.

Director, Bureau of Consumer Protection, Federal Trade Commission, June, 2001 - August, 2004. Responsible for policy development, law enforcement, rulemaking activity, and consumer and business education for the nation's general purpose consumer protection agency. Numerous speeches, press conferences, and Congressional appearances to explain the Bureau, its mission, and its actions. With a staff of 270 and a budget of $100 million, the Bureau enforces more than 20 consumer protection statutes. Major accomplishments include:

- Redirected the Agency's approach to privacy to focus on consequences of information use and misuse.
- Proposed, promulgated, and implemented the National Do Not Call Registry.
- Worked with Congress and the Administration to develop and implement the Fair and Accurate Credit Transactions Act of 2003.
- Pursued an aggressive law enforcement program that produced the largest redress orders in FTC history and attacked high volume frauds promoted through heavy television advertising.

Chief, Human Resources and Housing Branch, Office of Information and Regulatory Affairs, Office of Management and Budget, June, 1987 - July, 1988. OIRA reviewed all proposed and final regulations under Executive Order 12291 to assure that agencies only regulate based on adequate information that the benefits of regulation exceed the cost. Under the Paperwork Reduction Act, agencies also needed OIRA's approval for any activity that imposes information collection responsibilities on the private sector. The Branch handled all transactions with the Departments of Labor, Health and Human Services, Housing and Urban Development, and Treasury, as well as the Office of Personnel Management, Equal Employment Opportunity Commission, and the Veterans Administration. Major responsibilities included:

- Work with the Presidential Task Force on Regulatory Relief to develop proposals to accelerate the new drug approval process.
- Review of proposed and final regulations from the **Food and Drug Administration,** including a proposed rule to permit health claims on food labels, a proposed rule to restrict use of sulfiting agents on certain foods, and various OTC drug monographs.
- Review of paperwork and regulations from the **Occupational Safety and Health Administration,** including the hazard communication rule, the proposal to update exposure limits for some 400 substances, and rules concerning formaldehyde, benzene, and ethylene oxide.
- Review of **Health Care Financing Administration** rules concerning quality standards for clinical laboratories, nursing home requirements, Medicare coverage policy, and Medicaid drug reimbursement policies.

Associate Director for Policy and Evaluation, Bureau of Consumer Protection, Federal Trade Commission, August, 1983 -June, 1987. The Division's multidisciplinary staff actively participated in developing Commission policy regarding all aspects of consumer protection, focusing on unfair or deceptive practices (such as deceptive advertising) and various consumer credit statutes. It reviewed proposed law enforcement matters from five other divisions and ten regional offices to ensure consistency with policy objectives. Accomplishments and responsibilities included:

- Received **Award for Distinguished Service** in June, 1987, and **Senior Executive Service Awards** for outstanding management performance in 1984 and 1986.
- Policy development in a number of key areas, including the Commission's Deception and Advertising Substantiation Policy Statements and civil penalty assessments.
- Evaluating staff recommendations for formal investigations, administrative or district court litigation, consent negotiations, and rulemaking, as well as reviewing existing rules and policies.
- Supervised the Commission's program of commenting on regulatory matters before other federal and state agencies.
- Supervising the conduct of empirical studies of general policy issues, rulemaking proposals, and individual cases.

Acting Deputy Director, Bureau of Consumer Protection, Federal Trade Commission, October, 1985 - July, 1986. Jointly with the acting Bureau Director, managed the Bureau's staff of 145 lawyers. Primary responsibility for:

- Law enforcement activities involving consumer credit, marketing practices, and energy advertising.
- Rulemaking activities, including new rulemaking proposals and reviews of existing rules.
- Management of consumer protection activities in 10 FTC Regional Offices.
- Joint responsibility for allocating the Bureau's $12.5 million budget among various programs as a means of achieving objectives.

Assistant to the Director, Bureau of Consumer Protection, Federal Trade Commission, November, 1981 - August, 1983. As the first Economist to work in this capacity, reviewed staff recommendations on cases and rules to ensure sound economic and legal reasoning and consistency with policy objectives. Special projects and accomplishments included:

- Received the Commission's **Award for Excellence** for integrating economics into consumer protection law enforcement.
- Assisted in review of the definition of deceptive acts or practices, including proposed statutory definition and Commission Policy Statement.
- Primary responsibility for supervising review of the Commission's advertising substantiation doctrine.
- Assisted in developing evidentiary standards for review of Commission rulemakings, and applied the standards to rulemakings involving food advertising and creditors' contractual remedies.

Economist, Bureau of Economics, Federal Trade Commission, September, 1977 - November, 1981. Served as expert consultant to the Commission's operating bureaus, and offered independent policy advice to the Commission. Specialized in consumer protection problems, particularly those involving the economics of information and advertising.

- The only staff economist involved in rulemakings on food advertising, over the counter drug advertising, and children's advertising.
- Wrote sections for policy review sessions on consumer information remedies and policy toward the media.
- Designed major empirical studies of lawyer advertising and the effects of state restrictions on generic drug substitution.

1974 - 1976: Part time teaching assistant in economics at the University of Chicago, Assistant Debate Coach at Northwestern University, and consultant in a private antitrust suit.

April - September, 1973: Economic Analyst, American Trucking Associations, Inc., Washington, D.C. Evaluated ATA position on deregulation of trucking.

PUBLICATIONS

Textbook

Business & Government Relations: An Economic Perspective (Second Edition, Kendall Hunt Publishing, 2012).

Business & Government Relations: An Economic Perspective (Kendall Hunt Publishing, 2009).

Major Articles

"The Obama FTC Departed from Its Predecessors to the Detriment of Consumers," with Timothy J. Muris, Antitrust, Vol. 31, No. 3, pp. 124-138 (Summer 2017).

"Behavioral Economics and Credit Regulation," Journal of Law, Economics & Policy, Vol. 11, No. 3, pp. 349-365 (2015).

"FTC Consumer Protection at 100: 1970s Redux or Protecting Markets to Protect Consumers," with Timothy J. Muris, George Washington University Law Review, Vol. 83, No. 6, pp. 2157-2229 (2015).

"The FTC at 100: The Need for Improvement in Advertising and Privacy Regulation," Antitrust Chronicle, Vol. 5 No. 1, Spring, 2014 (online publication).

"Rationality, Revolving, and Rewards: An Analysis of Revolving Behavior on New Credit Cards," with Lacey L. Plache, Supreme Court Economic Review, Vol. 21, No. 1, pp. 133-156 (2014).

"In Defense of the Pfizer Factors," with Timothy J. Muris and Robert Pitofsky, in *The Regulatory Revolution at the FTC: A 30-Year Perspective on Competition and Consumer Protection*, James C. Cooper, Ed. (Oxford University Press, 2013), pp. 83-108.

"Striking the Proper Balance: Redress Under Section 13(b) of the FTC Act," with Timothy J. Muris, Antitrust Law Journal, Vol. 79, pp. 1-43 (2013).

"Does Advertising on Television Cause Childhood Obesity? A Longitudinal Analysis," with Robert Kulick, Journal of Public Policy and Marketing, Vol. 32, No.2, pp. 185-194 (2013).

"Health Related Claims, the Market for Information, and the First Amendment," Health Matrix: Journal of Law-Medicine, Vol. 21, No. 1, pp. 7-31 (2011).

"Consumer Protection and Behavioral Economics: To BE or not to BE?" Competition Policy International, Spring, 2008, Vol. 4, No. 1 pp. 149-168.

"Choice or Consequences: Protecting Privacy in Commercial Information," with Timothy J. Muris, University of Chicago Law Review, Winter, 2008, Vol. 75, No. 1, pp. 109-135.

"Brightening the Lines: The Use of Policy Statements at the Federal Trade Commission," Antitrust Law Journal, 2005, Vol. 72, No. 3, pp. 1057-1074.

"Advertising to Kids and the FTC: A Regulatory Retrospective That Advises the Present," George Mason Law Review, Summer, 2004, Vol. 12, No. 4, p. 873-894.

"Remarks before the 2003 Symposium on the Patriot Act, Consumer Privacy, and Cybercrime," North Carolina Journal of Law and Technology, Fall, 2003, Vol. 5, No. 1, pp. 1-31.

"The FTC's Use of Unfairness Authority: Its Rise, Fall, and Resurrection," Journal of Public Policy and Marketing, Fall, 2003, Vol. 22, No. 2, pp. 192-200.

"Modification and Consumer Information: Modern Biotechnology and the Regulation of Information," Food and Drug Law Journal, 2000, Vol. 55, No. 1, pp. 105-117.

"Licensing and Certification Systems," in The New Palgrave Dictionary of Economics and the Law, Peter Newman, ed. London: Macmillan Reference; New York, NY: Stockton Press, 1998.

"Marketing Pharmaceuticals: New Uses for Old Drugs," in Robert Helms, Ed., Competitive Strategies in the Pharmaceutical Industry, Washington: American Enterprise Institute Press, 1996, pp. 281-305.

"Assessments of Pharmaceutical Advertisements: A Critical Analysis of the Criticism," with William C. MacLeod, Food and Drug Law Journal, 1995, Vol. 50, No. 3, pp. 415-449.

"Regulatory Consistency and Common Sense: FTC Policy Toward Food Advertising Under Revised Labeling Regulations," Journal of Public Policy and Marketing, Spring, 1995, Vol. 14, No. 1, pp. 154-163.

"The Foundations of Franchise Regulation: Issues and Evidence," with Timothy J. Muris, Journal of Corporate Finance: Contracting, Organization, and Governance, 1995, Vol. 2, pp. 157-197.

"Economic Analysis and the Regulation of Pharmaceutical Advertising," Seton Hall Law Review, 1994, vol. 24, No. 3, pp. 1370-1398.

"State and Federal Regulation of National Advertising," with Timothy J. Muris (Washington: American Enterprise Institute, 1993).

"What State Regulators Should Learn from Federal Experience in Regulating Advertising," Journal of Public Policy & Marketing, Spring, 1991, Vol. 10, No. 1, pp. 101-117.

"Information, Competition, and Health: Regulatory Standards for Health Messages," with Timothy J. Muris, in America's Foods Health Messages and Claims: Scientific, Regulatory and Legal Issues, J.E. Tillotson, ed. (CRC Press, 1993).

"The Efficient Regulation of Consumer Information," with S. Salop and R. Craswell, Journal of Law and Economics, December, 1981, pp. 481-539.

"A Framework for Evaluating Consumer Protection Regulation," with R. Staelin, M. Mazis, and S. Salop, Journal of Marketing, Winter, 1981, pp. 11-21.

"Consumer Search and Public Policy," with R. Staelin, M. Mazis, and S. Salop, Journal of Consumer Research, June, 1981, pp. 11-22.

"Information Remedies for Consumer Protection," with S. Salop and R. Craswell, American Economic Review, May, 1981, pp. 410-413.

"Benefits and Costs of Label Information Programs," Banbury Report 6: Product Labeling and Health Risks, 1980, pp. 243-60.

"Selling Consumer Information," with S. Salop, Advances in Consumer Research, J. Olson, ed., Vol. VII, Association for Consumer Research, 1980, pp. 238-40.

"The Economics of Regulating the Professions," in Regulating the Professions, R. Blair and S. Rubin, eds., Lexington Books, 1980, pp. 125-142.

Other Publications

"BIAS at the FCC," Commentary, George Washington Regulatory Studies Center, June 6, 2016, available at https://regulatorystudies.columbian.gwu.edu/bias-fcc.

"Small-Dollar Installment Loans: An Empirical Analysis," with Anand M. Goel (Navigant Economics, March 2, 2015) (available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2581667.).

"An Empirical Analysis of the Value of Information Sharing in the Market for Online Content," with Jeffrey A. Eisenach, published online by Digital Advertising Alliance, available at http://www.aboutads.info/resource/fullvalueinfostudy.pdf, January, 2014.

"Putting Consumers First: A Functionality-Based Approach to Online Privacy," with Jeffrey A. Eisenach, (January 1, 2013). Available at SSRN: http://ssrn.com/abstract=2211540 or http://dx.doi.org/10.2139/ssrn.2211540.

"Television Advertising and Childhood Obesity," published online by Grocery Manufacturers Association, available at http://www.gmaonline.org/publicpolicy/docs/obesity/Beales%20Review%20of%20Recent%20Studies.pdf, October, 2010.

"The Value of Behavioral Targeting," published online by Network Advertising Initiative, available at http://www.networkadvertising.org/pdfs/Beales_NAI_Study.pdf, March, 2010.

"Modern Biotechnology and the Regulation of Information," Update: Food and Drug Law, Regulation, and Education, October, 2000, p. 10.

"Advertising is Less Powerful but More Important than Critics Believe," Book Review of Fear of Persuasion: A New Perspective on Advertising and Regulation, by John E. Calfee, in Commercial Speech Digest, Spring 1998, pp. 6-7.

"On the Eighth Day," Book review of Policy Controversy in Biotechnology: An Insider's View, by Henry I Miller, M.D., in Regulation, Winter 1997, pp. 50-51.

"Is there and FDA in your Future?" Medical Marketing and Media, June, 1995, Vol. 30, No. 6, pp. 34-47. (Roundtable discussion).

"Teenage Smoking: Fact and Fiction," The American Enterprise, March/April, 1994, p. 20.

Book Review of Richard T. Kaplar, ed., Bad Prescription for the First Amendment, in Journal of Public Policy and Marketing, Vol. 12, pp. 288-289, Fall, 1993.

"Congressional Confusion on Labeling and Advertising Could Deny Consumer Information and Free Speech," with Timothy J. Muris, Washington Legal Foundation Legal Opinion Letter, 1991.

"The Limits of Unfairness Under the Federal Trade Commission Act," with T. Muris (Association of National Advertisers, 1991).

"The Federal Trade Commission in the 1980s," in Marketing and Advertising Regulation: The Federal Trade Commission in the 1990s, P. Murphy and W. Wilkie, eds., University of Notre Dame, 1990, pp. 154-163.

"Dying For Drugs," Regulation: AEI Journal on Government and Society, December, 1988, pp. 9-11 (unsigned contributed editorial).

"Agency Focuses on the Most Harmful [food advertising] Claims," Los Angeles Times, October 27, 1986, p. V3.

"Comment" (on two advertising substantiation papers), in Empirical Approaches to Consumer Protection Economics, P. Ippolito and D. Scheffman, eds., Federal Trade Commission, March, 1986.

"Advertising Substantiation Program," with C. Guerard, E. Popper, D. Cheek, P. Skidmore, Report to the Federal Trade Commission, 1984.

Congressional Testimony

An Overview of the Credit Reporting System, Subcommittee on Financial Institutions and Consumer Credit, Committee on Financial Services, United States House of Representatives, September 10, 2014.

The FTC at 100: Views from the Academic Experts, Subcommittee on Commerce, Manufacturing, and Trade, Committee on Energy and Commerce, United States House of Representatives, February 28, 2014.

Credit Reports: What Accuracy and Errors Mean for Consumers, Subcommittee on Consumer Protection, Senate Committee On Commerce, Science, and Transportation, May 7, 2013

Legislative Hearing on H.R. 6149, the "Precious Coins and Bullion Disclosure Act," Subcommittee on Commerce, Trade and Consumer Protection, Committee on Energy and Commerce, United States House of Representatives , September 23, 2010.

Examining the Need for H.R. 2885, The Credit Monitoring Clarification Act, Committee on Financial Services, United States House of Representatives, May 20, 2008.

Peer-To-Peer ("P2P") File-Sharing Technology, Subcommittee on Competition, Infrastructure, and Foreign Commerce of the Committee on Commerce, Science, and Transportation, United States Senate, June 23, 2004.

Information Security -- Challenges for Businesses and Consumers, Subcommittee on Technology, Information Policy, Intergovernmental Relations, and The Census of the Committee On Government Reform, United States House of Representatives, June 16, 2004.

Efforts to Ensure the Truthfulness and Accuracy of the Marketing of Dietary Supplements for Children, Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, United States House of Representatives, June 16, 2004.

Identity Theft and Social Security Numbers, Subcommittee On Social Security of the Committee On Ways and Means, United States House of Representatives, June 15, 2004.

Hearing on Online Pornography: Closing the Door on Pervasive Smut, Subcommittee On Commerce, Trade, and Consumer Protection of the Committee on Energy and Commerce, United States House of Representatives, May 6, 2004.

Spyware, Subcommittee On Commerce, Trade, and Consumer Protection of the Committee on Energy and Commerce, United States House of Representatives, April 29, 2004.

Efforts to Fight Fraud on the Internet, Special Committee On Aging, United States Senate, March 23, 2004.

Efforts to Combat Unfair and Deceptive Subprime Lending, Special Committee on Aging, U.S. Senate, February 24, 2004.

Consumer Protection Issues in the Credit Counseling Industry, Subcommittee on Oversight, Committee on Ways and Means, U.S. House of Representatives, November 20, 2003.

Unsolicited Commercial Email, Subcommittee on Regulatory Reform and Oversight, Committee on Small Business, U.S. House of Representatives, October 30, 2003.

Contact Lens Legislation, Committee on Energy and Commerce, U.S. House of Representatives, September 9, 2003.

Issues Relating to Ephedra Containing Dietary Supplements, Subcommittee on Oversight and Investigations, and the Subcommittee on Commerce, Trade, and Consumer Protection, . House of Representatives, July 24, 2003.

Unsolicited Commercial Email, Subcommittee on Commerce, Trade and Consumer protection and the Subcommittee on Telecommunications and the Internet, Committee on Energy and Commerce, U.S. House of Representatives, July 9, 2003.

Identity Theft: Prevention and Victim Assistance, Financial Institutions and Consumer Credit Subcommittee, Financial Services Committee, U.S. House of Representatives, June 24, 2003.

Identity Theft: Prevention and Victim Assistance, Committee on Banking, Housing, and Urban Affairs, U.S. Senate, June 19, 2003.

Fair Credit Reporting Act, Financial Institutions and Consumer Credit Subcommittee, Financial Services Committee, U.S. House of Representatives, June 4, 2003.

Fair Credit Reporting Act, Committee on Banking, Housing, and Urban Affairs, U.S. Senate, May 15, 2003.

Identity Theft, Financial Services Committee, U.S. House of Representatives, April 3, 2003.

Internet Sales of Prescription Drugs, Committee on Government Reform, U.S. House of Representatives, March 27, 2003.

Marketing of Dietary Supplements, Subcommittee on Oversight of Government Management, Restructuring and the District of Columbia, Committee on Governmental Affairs, U.S. Senate, October 18, 2002.

Senior Identity Theft, Special Committee on Aging, U.S. Senate, July 18, 2002.

Identity Theft Penalty Enhancement Act of 2002, Subcommittee on Technology, Terrorism, and Government Information, Judiciary Committee, U.S. Senate, July 9, 2002.

The Franchise Rule, Subcommittee on Commerce, Trade, and Consumer Protection, Committee on Energy and Commerce, U.S. House of Representatives, June 25, 2002.

The Sports Agent Responsibility and Trust Act, H.R. 4701, Subcommittee on Commerce, Trade, and Consumer Protection, Committee on Energy and Commerce, U.S. House of Representatives, June 5, 2002.

The Integrity and Accuracy of the WHOIS Database, Subcommittee on Courts, the Internet and Intellectual Property, Committee on the Judiciary, U.S. House of Representatives, May 22, 2002.

Identity Theft, Subcommittee on Technology, Terrorism, and Government Information, Judiciary Committee, U.S. Senate, March 20, 2002.

Charitable Solicitation Fraud, Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, U.S. House of Representatives, November 6, 2001.

Dietary Supplement Fraud, Special Committee on Aging, U.S. Senate, September 10, 2001.

Rent-to-Own, Financial Services Committee, U.S. House of Representatives, July 12, 2001.

Teenage smoking, Subcommittee on Health and Environment, Committee on Commerce, U.S. House of Representatives, December 9, 1997.

Lectures and Presentations

"Lessons in Liability: The US Privacy Landscape and Proposals for Reform," IAPP Global Privacy Summit, April 2017.

"Wrap Up Panel," Federal Trade Commission PrivacyCon 2017, Washington, DC, January 12, 2017.

"The Value of Advertiser-supported Online Content," Digital Advertising Alliance Summit 2016, Los Angeles, CA, May, 2016.

"Monetary Remedies in FTC Consumer Protection Actions," American Bar Association, Antitrust Law Section, Spring Meeting, Washington DC, April 6, 2016.

Discussant, Research Roundtable for Privacy Fellows, George Mason Law and Economics Center, Arlington, VA, December 2015.

"Nomi, Spokeo, and Privacy Harms," George Mason Law and Economics Center Public Policy Briefing, Arlington, VA, November 2015.

Moderator, Economics of Data Breach Regulation, Public Policy Conference on Privacy and Data Security, George Mason Law and Economics Center, Arlington, VA, June 2015.

"Advertising Substantiation," American Bar Association, Antitrust Law Section, Consumer Protection Conference, Washington DC, February 12, 2015.

"Behavioral Economics and Credit Regulation," George Mason University, Arlington, VA, November 14, 2014.

"The Law and Economics of Consumer Protection," George Mason University, Arlington, VA, October 23, 2014.

"Where is the FTC Heading On Digital Consumer Protection," Tech Freedom Conference, Washington, DC, July 31, 2014.

"The Value of Information Sharing," Digital Advertising Alliance, San Francisco, CA, June 26, 2014.

"The FTC's Proper Role in Privacy and Data Security Regulation," George Mason Law and Economics Center Conference on the Future of Privacy and Data Security Regulation," Arlington, VA, May 14, 2014.

"Behavioral Economics," George Mason Law and Economics Center, Arlington, VA, May 2, 2014.

"The FTC at 100," Association of National Advertisers, Washington, DC, April 23, 2014.

"The Internet of Things," American Bar Association, Business Law Section, Washington, DC, March 26, 2014

"The Regulatory Environment," Federal Reserve Bank of Philadelphia, Conference on "Small-Dollar Credit: Products, Economics, and Regulation," Philadelphia, Pa., July 11-12, 2013.

"The Economics of Relevant Advertising: Preserving the Consumer Value from the Ad-Supported Internet," Digital Advertising Alliance Summit, Washington, DC, June 5, 2013.

"The Consumer Finance Market as a Reflection of Growing Income Disparity in America: The Social Benefits and Costs," American Bar Association, Business Law Section, Washington, DC, April 5, 2013.

"Current Issues in Advertising Regulation," American Bar Association, Antitrust Law Section, Consumer Protection Conference, Washington, DC, February 7, 2013.

"Protecting Consumers, Protecting Privacy: Addressing Privacy Issues as "Unfair or Deceptive Acts or Practices," George Mason Law and Economics Center Conference on the Law & Economics of Privacy and Data Security, Arlington, VA, December 13, 2012.

"Benefits and Risks of Comprehensive Data Collection," FTC Workshop on The Big Picture: Comprehensive Online Data Collection, Washington, DC, December 6, 2012.

"Product Selection: Unfair, Deceptive, and Abusive Practices," Conference on Consumer Financial Protection Regulations: How Well do they Measure Up?, Federal Reserve Bank of Philadelphia, Payment Card Center, Philadelphia, PA, September 14, 2012.

"Consumer Protection and the Financial Crisis," Experian Legal Conference, Blufton, SC, March 20, 2012.

"The FTC and the CFPB," American Bar Association, Antitrust Law Section, Fall Forum, Washington, DC, November, 2011.

"In Defense of the Pfizer Factors," with Timothy J. Muris and Robert Pitofsky, George Mason University Law and Economics Center, Arlington, VA, September, 2011.

"Privacy Regulation in the U.S. and Europe," Google Legal Summit, Los Angeles, CA, September, 2011.

"The Impact of the Interagency Working Group's Proposed Restrictions on Advertising," U.S. Chamber of Commerce Regulatory Affairs Committee, Washington, DC, June, 2011.

"The Value of Behavioral Targeting," American Marketing Association, Marketing and Public Policy Conference, Washington, DC, June, 2011.

"A New Era for the FTC Advertising Substantiation Standards?" American Bar Association, Antitrust Law Section, Spring Meetings, Washington, DC, April, 2011.

"FTC Preliminary Privacy Report: Key Takeaways for Business," International Association of Privacy Professionals, Global Privacy Summit, Washington, DC, March, 2011.

"Substantiation: Is the FTC Changing the Rules? Will The Courts Go Along?" American Bar Association, Antitrust Law Section, Consumer Protection Conference, Washington, DC, February, 2011.

"Regulating Online Advertising: What Will it Mean for Consumers, Culture & Journalism?" Progress & Freedom Foundation Capitol Hill Briefing, Washington, DC, July, 2009.

"The Bureau Director's Roundtable," American Bar Association, Antitrust Law Section, Consumer Protection Conference, Washington, DC, June, 2009.

"A Two Decade Perspective on Changing FTC Priorities, Initiatives, and Impact," American Marketing Association Marketing and Public Policy Conference, Washington, DC. May, 2009.

"Public Goods, Private Information, and Anonymous Transactions: Providing a Safe and Interesting Internet," George Mason University/Microsoft Conference on the Law and Economics of Innovation, Arlington, Virginia, May, 2009.

"Historical Perspectives on Privacy in the United States," Data Privacy in Transatlantic Perspective: Conflict or Cooperation? Durham, North Carolina, January, 2008.

"Media and Public Policy," Future of Children Conference, Princeton, New Jersey, April, 2007.

"Regulating Through Consent Decrees," American Bar Association, Business Law Section, Frederic Fisher Memorial Program, Washington, DC, March, 2007.

"The Bureau Director's Perspective," American Bar Association, Antitrust Law Section, Consumer Protection Conference, Washington, District DC, January, 2007.

"Privacy Law: Enough Already!" American Bar Association, Antitrust Law Section, Washington, DC, October, 2006.

Numerous speeches to trade groups, consumer groups, and others while Director of the Bureau of Consumer Protection, 2001-2004.

"Off Label Uses of Prescription Drugs," Conference on Marketing and Public Policy, sponsored by American Marketing Association, May 17-18, 1996, Washington, D.C.

Discussant at Conference on Marketing and Public Policy, sponsored by American Marketing Association, May 19-20, 1995, Atlanta, Ga.

"What Happens After Approval? Regulatory Policy and the Flow of Information," American Enterprise Institute Conference on Reforming the Food and Drug Administration: The Pharmaceutical Approval Process," March 10, 1995, Washington, D.C.

"State Regulation of Franchise Contracts," with Timothy J. Muris, George Maxon University School of Law Faculty Workshop Series, November, 1994.

"Regulating the Franchise Relationship: Issues and Evidence," with Timothy J. Muris, Conference on Franchise Contracting, Organization, and Regulation, Michigan Business School, May 26-27, 1994.

Discussant at Conference on Marketing and Public Policy, sponsored by American Marketing Association, May 13-14, 1994, Washington, D.C.

"The Impact of Information in the Marketplace: Promoting New Uses for Old Drugs," Southern Economic Association, New Orleans, La., November 21-23, 1993.

"Regulating Pharmaceutical Advertising," Symposium, The Pharmaceutical Industry: Surviving Reform, Regulation, and Litigation," Seton Hall University School of Law, Newark, N. J., November 16, 1993.

Discussant at Conference on Marketing and Public Policy, sponsored by American Marketing Association, May 17-18, 1992, Washington, D.C.

"Marketing Pharmaceuticals: New Uses for Old Drugs," Conference on Competitive Strategies in the Pharmaceutical Industry, American Enterprise Institute, Washington, Oct. 27-28, 1993.

"Civil Penalties and Organizational Sanctions," Lecture at the Commodity Futures Trading Commission, Washington, D.C., January 30, 1992.

"The Economics of Information," Lecture at the Commodity Futures Trading Commission, Washington, D.C., October 14, 1991.

"Economic Analysis and the Regulatory Process," American Society of Association Executives, Washington, D.C., November 18, 1990.

Participant in Foresight Seminars on Pharmaceutical Research, Economic Issues in Genetic Screening, Washington, D.C., September, 1988.

Discussant at the Association for Consumer Research, Boston, Mass., October, 1987.

Food and Drug Law Institute, Seminar on Health Claims for Foods, Washington, D.C., September, 1987.

American Marketing Association Doctoral Consortium, Duke University, August, 1985.

Georgetown University Law Center for Continuing Legal Education, February, 1985.

Practicing Law Institute, Washington, December, 1984.

Unpublished Papers

"Public Comment on NHTSA's Federal Automated Vehicles Policy: Accelerating the Next Revolution in Roadway Safety," with Sofie E. Miller and Daniel R. Perez, George Washington Regulatory Studies Center, November 16, 2016, available at https://regulatorystudies.columbian.gwu.edu/public-comment-nhtsa%E2%80%99s-federal-automated-vehicles-policy-accelerating-next-revolution-roadway-safety.

"Comment on Putting Disclosure to the Test," FTC Workshop Putting Disclosure to the Test, October 30, 2016.

"Public Comment on Protecting the Privacy of Customers of Broadband and Other Telecommunications Services," George Washington Regulatory Studies Center, May 27, 2016, available at https://regulatorystudies.columbian.gwu.edu/public-comment-protecting-privacy-customers-broadband-and-other-telecommunications-services.

Artie's Auto Body, Inc. v. The Hartford Fire Insurance Company, SC 19219, Amicus brief, Supreme Court of the State of Connecticut, with Timothy J. Muris, January 4, 2014.

POM Wonderful, LLC, v. Federal Trade Commission, Brief of Amici Curiae Consumer Healthcare Products Association and Council for Responsible Nutrition, U.S. Court of Appeals for the D.C. Circuit, August 21, 2013, with Timothy J. Muris

"Putting Consumers First: A Functionality-Based Approach to Online Privacy," with Jeffery A. Eisenach, http://ssrn.com/abstract=2211540, January 1, 2013.

"Consumer Welfare Implications of Regulating Rent-to-Own Transactions," with Jeffrey A. Eisenach and Robert E. Litan, http://ssrn.com/abstract=2060984, May 16, 2012.

"Short-Term Consumer Credit: Literature Review," October 2011.

"Associations between Screen Media and Language Development in Infants," with Elizabeth Vandewater (2010).

"Market Oriented Consumer Protection," (2009).

"Advertising and Teenage Smoking Behavior," November, 2000.

Public Interest comment on FDA's proposed rule regarding nutrition labeling of trans fatty acids, submitted by the Regulatory Studies Program, Mercatus Center, George Mason University, April, 2000.

"The Inefficiency of State Regulation of Franchise Contracts," with Timothy J. Muris, (1998).

"The Health Consequences of Decisions About Drugs," August, 1996.

"Regulating the Franchise Relationship: Issues and Evidence," with Timothy J. Muris, (1994).

"The Determinants of Teenage Smoking Behavior," Working Paper 96-34, School of Business and Public Management, The George Washington University (1996).

"Marketing Information and Pharmaceuticals: New Uses for Old Drugs," Working Paper No. 2, Department of Strategic Management and Public Policy, The George Washington University (1993).

"Advertising and the Determinants of Teenage Smoking Behavior," Working Paper No. 1, Department of Strategic Management and Public Policy, The George Washington University (1993).

"Television Program Quality and Restrictions on the Number of Commercials," presented at the Eighth Annual Conference on Telecommunications Policy Research, April, 1980 (Bureau of Economics Working Paper Number 30, June, 1980).

"Disseminating Defect Information," with E. Golding, October, 1980.

"Economic Effects of Standards and Disclosures," February, 1979.

"An Analysis of Exposure to Non-Network Television Advertising," Testimony submitted to the FTC, Hearings on Children's Advertising Rulemaking, November, 1978.

"The Gains and Losses from Industrial Concentration Revisited," July, 1978.

"The Distribution of Advertising Within an Industry," Ph.D. Dissertation, The University of Chicago, June, 1978.

"A Simple Model of Industry Adjustment to a Cost Saving Innovation," February, 1978.

<u>Other Professional Activities</u>

Member, Data Protection and Integrity Advisory Committee, Department of Homeland Security, 2004 – 2014; Chairman, 2006 - 2009.

Member, Institute of Medicine Committee on Food Marketing and the Diets of Children and Youth, 2004 - 2006.

Consultant for Walt Disney Company, Pepsico, American Express, Visa, Exxon Mobil, America Online, Primerica, Mortgage Insurance Companies of America, Federated Department Stores, Ford Motor Co., General Mills, Grocery Manufacturers of America, R. J. Reynolds, and others.

Ad Hoc referee for the Journal of Public Policy and Marketing.

Reviewer for papers for American Marketing Association's Marketing and Public Policy Conference, 1992-1996.

Referee for Bureau of Economics Staff Report on comparative price advertising.

Textbook Reviewer for McGraw Hill (1997).

EXHIBIT B

Prior Testimony via Trial Testimony or Deposition

Hoffman et al. v. American Express Travel Related Services Company Inc., et al. Superior Court, California, Alameda County. Deposition, October 21, 2008

Schlesinger et al. v. Ticketmaster, Superior Court, California, Los Angeles County. Declaration dated September 19, 2009, Deposition, September 14, 2010.

Greenwood et al. v. Compucredit Corporation., Case No. 4:08-CV-4878, U.S. District Court, Northern District of California, Expert Report Dated January 14, 2011, Deposition, March 4, 2011.

Commissioner of Competition v. Chatr Wireless Inc. and Rogers Communications Inc., Ontario, Canada, Superior Court of Justice (Commercial List), Court File No. CV-10-8993-00CL, Expert Report Dated October 21, 2011; testimony August 7, 2012.

Lutron Electronics Co., Inc., v. Crestron Electronics, Inc., U.S. District Court, District of Utah, Central Division, Civil No.: 2:09-cv-707, Expert Report Dated November 5, 2012, Deposition November 27, 2012.

Illinois vs Alta Colleges, Inc., et al., Circuit Court of Cook County, Illinois, County Department, Chancery Division, No. 12 CH 01587, Expert Report Dated January 3, 2014, Deposition April 2, 2014.

Confidential Arbitration, Rebuttal Expert Report Dated August 15, 2015, Supplemental Report Dated October 12, 2015, Testimony before arbitrator October 16, 2015.

Euro-Pro Operating LLC v. Dyson, Inc., and Dyson Ltd., U.S. District Court, Massachusetts, Case No. 1:14-cv-13720, Rebuttal Expert Report Dated January 29, 2016, Deposition, February 24, 2016.

State of Oregon v. Living Essentials, LLC, and Innovation Ventures, LLC, Circuit Court of the State of Oregon for Multnomah County, Case No. 14-cv-09149, Testimony July 19, 2016.

CFPB vs. CashCall, Inc., U.S. District Court, Central District of California, Case No. 2:15-cv-07522-JFW (RAOx), Expert Report Dated May 27, 2016, Deposition July 22, 2016.

State of Washington v. Living Essentials, LLC et al., King County Superior Court, No. 14-2-19684-9, Report dated January 22, 2016, Deposition March 28, 2016, Testimony September 7, 2016.

Federal Trade Commission v. DIRECTV, U.S. District Court, Norther District of California, Case No. 3:15-cv-01129 HSG, Report dated September 16, 2016, Depositions October 25, 2016; December 16, 2016.

State of Colorado v. Center for Excellence in Higher Education, Inc. et al., District Court, City and County of Denver, Case No. 2014cv34530, Expert Report dated August 4, 2017, Deposition, August 21, 2017, Trial Testimony November 1, 2017.

Expert Reports and Declarations

Hulme v. Iovate Health Sciences U.S.A., Inc. et al., Superior Court, California, County of Los Angeles, Case No. BC 391226, Report Dated September 13, 2008.

SendTec, Inc. v. Cosmetique, Inc., U.S. District Court, Middle District of Florida, Tampa Division, Case No. 8:07cv1643-SCB-TGW, Report Dated September 15, 2008.

Harris v. TransUnion, C.A. No. 6:06-cv-01811-GRA (D.S.C.), Report Dated January 5, 2009.

Affinia Group Inc., v. I.A.P., Inc et al., U.S District Court, Eastern District of Virginia, Civil Action No. 3:09-cv427, Report Dated November 2, 2009.

Fitzpatrick et al. v. General Mills, Inc. and Yoplait USA, Inc., U.S. District Court, Southern District of Florida, Case No. 09-Civ-60412-Huck-O'Sullivan, Report Dated March 12, 2010.

Jeremiah Johnson v. General Mills, Inc. and Yoplait USA, Inc., U.S. District Court, Central District of California, Case No. SACV-10-00061-CJC (ANx), Declaration dated April 9, 2012.